

**REMARKS**

The Applicant thanks the Examiner for the careful consideration of this application.

Claims 1-29 are currently pending. Based on the foregoing remarks, the Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

**Rejections under 35 U.S.C. § 103**

(1) The Office Action rejected claims 1, 5, 6, 8-12, and 17-19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,414,232 to Wilson (“Wilson”) in view U.S. Patent Application Publication No. 2005/0067218 to Bristow et al. (“Bristow”). Claim 1 is the independent claim. The Applicant traverses this rejection for at least the following two reasons.

*First*, one of ordinary skill in the art would not have combined Wilson and Bristow in the manner suggested by the Office Action. In rejecting claim 1, the Office Action aligns the cellular element 122 of Wilson’s Fig. 4 with the claimed “top sheet.” The Office Action acknowledges that the cellular element 122 does not “comprise a layer of metallic foam,” as claimed. To overcome the deficiencies of Wilson, the Office Action cites to the metallic foam 35 disclosed in Bristow. In combining Wilson and Bristow, the Office Action asserts that “it would have been obvious . . . to combine the teachings of Bristow to use metallic foam as a sound absorber with the liner of Wilson to provide a high temperature sound absorbing material.” The Applicant respectfully disagrees with this combination, because Wilson *teaches away* from using a metallic foam.

In describing Fig. 4, Wilson states that “the facing sheet 14 and the cellular element 122

are made from compatible bonding thermoplastics material.” (Wilson at col. 5, ll. 53-55.)

Further, in describing advantages over the prior art, Wilson states that “the thermoplastic component parts do not have the **problem** of metal galvanic corrosion.” (See Wilson at col. 5, ll. 17-18 (emphasis added).) With this direct teaching of corrosion problems with metal from Wilson, one of ordinary skill in the art would not consider and, in fact, would be dissuaded from substituting a metallic material for the thermoplastic components of the facing sheet 14 or the cellular element 122. Therefore, Wilson teaches away from the use of a metallic material, such as the metallic foam 35 of Bristow, for the cellular element 122, as postulated by the Office Action. Accordingly, it would not have been obvious to substitute the metallic foam material disclosed in Bristow for the thermoplastic material of Wilson’s cellular element 122. (See KSR Int’l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1745 (2007) (sanctioning “teaching away” as a defense to an allegation of obviousness”).)

*Second*, no reasonable combination of Wilson and Bristow discloses “a top sheet having substantially linear characteristics,” as recited by claim 1. As stated above, the Office Action aligns the cellular element 122 of Wilson’s Fig. 4 with the claimed “top sheet.” However, nowhere does Wilson disclose that the cellular element 122 has “substantially linear characteristics,” as claimed. Bristow does not remedy this deficiency of Wilson, because Bristow also fails to disclose any materials having “substantially linear characteristics.” Accordingly, no reasonable combination of Wilson and Bristow discloses “a top sheet having substantially linear characteristics,” as recited by claim 1.

The Applicant submits that claim 1 is patentable over Wilson and Bristow for at least the

two reasons set forth above. Claims 5, 6, 8-12, and 17-19 depend from claim 1, and are patentable for at least the same reasons.

(2) The Office Action rejected claims 2-4 under 35 U.S.C. § 103(a) as being unpatentable over Wilson in view of Bristow, and further in view of U.S. Patent No. 5,175,401 to Arcas et al. (“Arcas”). Claims 2-4 depend from claim 1, which, as demonstrated above, is patentable over Wilson and Bristow. Arcas does remedy the deficiencies of Wilson and Bristow. Accordingly, the Applicant submits that claims 1-4 are patentable over Wilson, Bristow, and Arcas.

(3) The Office Action rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Wilson in view of Bristow, and further in view of U.S. Patent No. 6,182,787 to Kraft et al. (“Kraft”). Claim 7 depends from claim 1, which, as demonstrated above, is patentable over Wilson and Bristow. Kraft does remedy the deficiencies of Wilson and Bristow. Accordingly, the Applicant submits that claims 1 and 7 are patentable over Wilson, Bristow, and Kraft.

(4) The Office Action rejected claims 20 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Wilson in view of Bristow, and further in view of U.S. Patent No. 4,291,080 to Ely et al. (“Ely”). Claim 20 is the independent claim. The Applicant traverses this rejection for at least the following two reasons.

*First*, the asserted combination of Wilson and Bristow is improper, because Wilson

*teaches away* from using the metallic foam 35 of Bristow, as demonstrated above in subparagraph (1).

*Second*, no reasonable combination of Wilson, Bristow, and Ely discloses “a top sheet . . . having substantially linear characteristics,” as recited by claim 20. As demonstrated above in subparagraph (1), Wilson and Bristow both fail to disclose a material having “substantially linear characteristics,” as claimed. Ely also fails to disclose a material having “substantially linear characteristics.” Accordingly, no reasonable combination of Wilson, Bristow, and Ely discloses “a top sheet . . . having substantially linear characteristics,” as recited by claim 20.

The Applicant submits that claim 20 is patentable over Wilson, Bristow, and Ely for at least the foregoing two reasons. Claim 21 depends from claim 20, and is patentable for at least the same reasons.

(5) The Office Action rejected claims 13-16 and 22-25 under 35 U.S.C. § 103(a) as being unpatentable over Wilson in view of Bristow and Ely, and further in view of U.S. Patent No. 5,962,107 to Lowery et al. (“Lowery”). Claims 13-16 and 22-25 depend variously from independent claims 1 and 20, which, as demonstrated above, are patentable over Wilson, Bristow, and Ely. Lowery does not remedy the deficiencies of Wilson, Bristow, and Ely. Accordingly, the Applicant submits that claims 1, 13-16, 20, and 22-25 are patentable over Wilson, Bristow, Ely, and Lowery.

(6) The Office Action rejected claims 26-29 under 35 U.S.C. § 103(a) as being

unpatentable over Wilson in view of Bristow, Arcas, Ely, and Lowery. Claim 26 is the independent claim. The Applicant traverses this rejection for at least the following three reasons.

*First*, the asserted combination of Wilson and Bristow is improper, because Wilson *teaches away* from using the metallic foam 35 of Bristow, as demonstrated above in subparagraph (1).

*Second*, no reasonable combination of Wilson, Bristow, Arcas, Ely, and Lowery discloses “metallic foam [that] is compressed,” as recited by claim 26. The Office aligns the cellular sound absorption material 20 and perforations 22 of Lowery’s Fig. 15 with the “metallic foam [that] is compressed” of claim 26. However, the perforations 22 are not *compressed* into the cellular sound absorption material 20, as claimed, but rather, are formed by “needling, drilling, [or] water jet piercing.” (See Lowery at col. 4, ll. 22-28.) Therefore, no reasonable combination of Wilson, Bristow, Arcas, Ely, and Lowery discloses “metallic foam [that] is compressed,” as recited by claim 26.

*Third*, no reasonable combination of Wilson, Bristow, Arcas, Ely, and Lowery discloses a “metallic foam [that] is compressed to satisfy flow and temperature linearity requirements of the acoustic liner,” as recited by claim 26. The Office Action cites to Arcas at column 2, lines 13-17 for teaching the importance of a non-linearity factor. While Arcas discloses a perforated sheet adapted to provide “low non-linearity factors,” nowhere does Arcas disclose that the low non-linearity factors relate to both “flow and temperature,” as claimed. Accordingly, no reasonable combination of Wilson, Bristow, Arcas, Ely, and Lowery discloses a “metallic foam [that] is compressed to satisfy flow and temperature linearity requirements of the acoustic liner,”

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as recited by claim 26.

The Applicant submits that claim 26 is patentable over Wilson, Bristow, Arcas, Ely, and Lowery for at least the foregoing three reasons. Claims 27-29 depend from claim 26, and are patentable for at least the same reasons.

### Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant, therefore, respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Response is respectfully requested.

Respectfully submitted,

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